REMARKS

Claims 1-31 are pending in the present application. In the Office Action mailed June 7, 2005, the Examiner rejected claims 9-18 under 35 U.S.C. §102(e) as being anticipated by Wu et al. (USP 6,687,527). The Examiner next rejected claims 1-8 and 19-24 under 35 U.S.C. §103(a) as being unpatentable over Wu et al. in view of Gaertner (USP 5,680,560). Claims 25-31 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Wu et al. in view of Seybold (USP 5,877,758) and Gaertner.

The Examiner rejected claims 9-18 under 35 U.S.C. §102(e) as being anticipated by Wu et al. Applicant has amended claim 9 to incorporate subject matter from claims 10 and 12. As will be shown, the rejection of amended claim 9 cannot be sustained under 35 U.S.C. §102(e) as being anticipated by Wu et al.

Specifically, claim 9 calls for, in part, hierarchically prioritizing a plurality of scan parameters that include determining a set of primary scan parameters for the scan session, determining a set of secondary scan parameters for the scan session, and determining a set of tertiary scan parameters for the scan session. The claim further states that a change to one of the set of tertiary scan parameters may affect another of the set of tertiary scan parameters, but not affect any of the set of secondary scan parameters and any of the set of primary scan parameters. In the Office Action, the Examiner stated that the "fixed parameters," "selectable parameters," and "monitor parameters" of Wu et al. are the primary, secondary, and tertiary scan parameters. Office Action, p. 3. The Examiner also stated in regard to claim 12 that "[t]he user cannot directly change the tertiary scan parameters so these parameters cannot affect the primary or secondary scan parameters". Id.

However, Wu et al. teaches that the monitor parameters "are calculated by the user interface processor 60 from the selectable parameters." Col. 10, lns. 41-43. Wu et al. further teaches that the monitor parameters are "changed indirectly in response to new values of the underlying selectable parameters . . . ." Col. 10, lns. 43-47. Thus, Wu et al. teaches calculation of the monitor parameters from new selectable parameter values. In addition, Wu et al. teaches that the monitor parameters "are preferably not directly modifiable by the user . . . ." Id.

In contrast, claim 9 establishes that a change to one of the set of tertiary scan parameters may affect another of the set of tertiary scan parameters, but not affect any of the set of secondary scan parameters and any of the set of primary scan parameters. Therefore, a change to a tertiary scan parameter may affect another tertiary scan parameter. Wu et al. does not teach or suggest that a change to one of the set of tertiary scan parameters may affect another of the set of tertiary

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scan parameters. That is, the monitor parameters are calculated from the secondary parameters. However, a change to one monitor parameter cannot affect another monitor parameter since the monitor parameters are not directly modifiable. A change to a selectable parameter may affect a change in the monitor parameters, but the change to one monitor parameter does not affect a change in another monitor parameter. Rather, it is the change to the selectable parameter that affects a change in the other monitor parameters. As such, Wu et al. fails to teach that a change to one of the set of tertiary scan parameters may affect another of the set of tertiary scan parameters.

Therefore, for at least the reasons stated above, the prior art fails to teach that which is being claimed. As such, Applicant believes that claims 9-11 and 13-18 are patentably distinct from the art of record.

The Examiner rejected claims 1-8 under 35 U.S.C. §103(a) as being unpatentable over Wu et al. in view of Gaertner. The burden of establishing a prima facie case of obviousness falls on the Examiner. MPEP §2142. Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention absent some teaching or suggestion supporting the combination. ACS Hospital Systems, Inc. v. Montefiore Hospital, 732 F.2d 1572, 1577, 221 U.S.P.Q. 929, 933 (Fed. Cir. 1984). Accordingly, to establish a prima facie case, the Examiner must not only show that the combination includes each and every element of the claimed invention, but also provide "a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references." Ex parte Clapp, 227 USPQ 972, 973 (Bd. Pat. App. & Inter. 1985). That is, "[o]bviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art." MPEP §2143.01. "The fact that references can be combined or modified is not sufficient to establish prima facie obviousness." Id. When prior art references require a selected combination to render obvious a subsequent invention, there must be some reason for the combination other than the hindsight gained from the invention itself, i.e., something in the prior art as a whole must suggest the desirability, and thus the obviousness, of making the combination. Uniroyal Inc. v. Rudkin-Wiley Corp., 837 F.2d 1044, 5 U.S.P.Q.2d 1434 (Fed. Cir. 1988). Applicant believes that a prima facie case of obviousness has not been established and one cannot be made based on the art of record because there is no motivation to

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combine the references and because the art of record fails to teach each and every element of the claimed invention.

Wu et al. relates to "user interfaces for clinical imaging systems." Col. 1, lns. 9-11. Wu et al. states that "[t]ypically, the first user input after loading a sequence from memory 68 will be the entering of a new selectable parameter value." Col. 15, lns. 1-3. The new parameter value is then "verified to be within the minimum and maximum limits. . . ." Col. 15, lns. 3-5. Wu et al. teaches that the system updates the parameter value upon receiving an acceptable value, calculates and updates any changed parameter limits and monitor parameter values affected by the changed selectable parameter, and reformats the display areas. See col. 15, lns. 23-29. Wu et al. further states that "[b]y reviewing the monitor parameters and/or selected operating curves in the second display area 200, 300, 400, 420 after the step 510 recalculates the monitor parameter values to reflect the changed selectable parameter value, the user easily recognizes the effect of the change." Col. 15, lns. 35-39.

Gaertner relates to "a single control for changing a plurality of parameter ranges." Col. 1, lns. 11-13. Gaertner teaches a GUI that "allows the simultaneous setting of ranges for two parameters by manipulating the control element via the mouse or other pointing device." Col. 5, lns. 54-56. The ranges "may be used as part of a monitoring program which would then take actions based on satisfying these ranges, e.g., alerting users that these parameter ranges were satisfied." Col. 7, lns. 5-8. A state machine is used to determine whether conditions are met. See col. 7, lns. 8-9; Fig. 7. The state machine determines whether data is in a specified range for a specified time. See col. 7, lns. 9-24. If the data and time ranges are satisfied, the state machine sends returns to a home state. Id.

Gaertner teaches that "[o]nce the state machine determines that the range is satisfied, the monitoring program handles the determination of the actual alarms based on the relationships which the range may have with other ranges." Col. 7, lns, 25-28. If the range has an "and" relationship with a second set of parameters, the monitoring programs looks "to a second state machine to determine whether the range conditions of [the] second set of parameters were satisfied before alerting users or taking other actions." Col. 7, lns. 29-32. Thus, before alerting a user or taking an action, the monitoring program waits until the conditions of the second set of parameters are satisfied. That is, after the conditions of the second set of parameters are satisfied, the monitoring program alerts a user or performs an action.

Contrary to both Wu et al. and Gaertner, claim 1 calls for, in part, receiving a scan parameter input, comparing the scan parameter input to a reference value, determining a state of

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validity of a number of remaining scan parameters, and notifying a user of if any state of validity is out of a predefined range for the scan parameter input <u>before</u> updating the number of remaining scan parameters. Claim 1 calls for a method whereby a user is notified <u>before</u> updating the number of remaining scan parameters of whether a state of validity is out of a predefined range. In this regard, the remaining scan parameters are not updated and the user then notified of a validity issue. Rather, user notification occurs <u>before</u> parameter updating.

As stated above, Wu et al. teaches user recognition of change effects <u>after</u> updating those parameter values affected by the changed selectable parameter on the second display area. In fact, Wu et al. teaches an "undo" option to "cancel a change and return to the previous set of selectable parameters." See col. 15, lns. 35-48. That is, the system of Wu et al. changes the remaining parameters and then allows a user to "undo" these changes if the result of the change is unacceptable.

Gaertner, as stated above, teaches waiting until <u>after</u> conditions of a first and second set of parameters are satisfied to alert a user or perform an action. Gaertner does not teach notifying a user of if any state of validity is out of a predefined range for the scan parameter input before updating the number of remaining scan parameters.

Neither Wu et al. nor Gaertner teach notifying a user of if any state of validity is out of a predefined range for the scan parameter input <u>before</u> updating the number of remaining scan parameters. Thus, the art of record fails to teach each and every element of the claimed invention.

Further, it would not be obvious to one skilled in the art to combine the references to produce that called for in claim 1. The Examiner stated that "it would have been obvious to one having ordinary skill in the art at the time of the invention to alert the user before taking action (as taught by Gaertner) in the method disclosed by Wu." Office Action, p. 6. Applicant respectfully disagrees. Gaertner teaches "alerting users or taking other actions" after determining whether conditions have been met. Col. 7, line 32. Gaertner does not teach notifying a user before updating <u>any</u> parameters. As stated above, Gaertner teaches a monitoring program that alerts a user or performs an action after conditions of a first and second set of parameters are satisfied. While a user may be alerted if a state machine determines that conditions have not been met, there is no motivation to combine a state machine determination as described with the teachings in Wu et al. That is, Wu et al. fails to teach user notification before updating the number of remaining scan parameters of whether a state of validity is out of a predefined range, and Gaertner, which teaches alerting users when a state machine has determined that conditions

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for the state machine are not met, fails to teach user notification before updating the number of remaining scan parameters of whether a state of validity is out of a predefined range. Since a combination of the references fails to teach that called for in claim 1, the Examiner has not provided a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references.

Therefore, because there is no motivation to combine the references and because the art of record fails to teach each and every element of the claimed invention, Applicant believes that claim 1 and the claims that depend therefrom are patentably distinct from the art of record.

The Examiner rejected claims 19-24 under 35 U.S.C. §103(a) as being unpatentable over Wu et al. in view of Gaertner. The Examiner also rejected claims 25-31 under 35 U.S.C. §103(a) as being unpatentable over Wu et al. in view of Seybold and Gaertner. Applicant respectfully disagrees.

Claim 19 calls for, in part, displaying an indication of the at least one effect on the GUI prior to modification of the another scan parameter. Claim 25 calls for, in part, displaying on the console if there is any consequence of modifying the at least one of the plurality of options on another option before modifying the another option. Applicant incorporates the remarks set forth above. Neither Wu et al. nor Gaertner teaches or suggests displaying an indication of the at least one effect on the GUI prior to modification of the another scan parameter as called for in claim 19. Further, neither Wu et al. nor Gaertner teaches or suggests displaying on the console if there is any consequence of modifying the at least one of the plurality of options on another option before modifying the another option as called for in claim 25. Accordingly, the prior art fails to teach each and every element of either claim 19 or claim 25.

Further, it would not be obvious to one skilled in the art to combine the references to produce that called for in claims 19 and 25. The Examiner stated that "it would have been obvious to one having ordinary skill in the art at the time of the invention to alert the user before taking action (as taught by Gaertner) in the method disclosed by Wu." Office Action, p. 6. Applicant respectfully disagrees. Gaertner teaches "alerting users or taking other actions" after determining whether conditions have been met. Col. 7, line 32. Gaertner does not teach notifying a user before updating any parameters. As stated above, Gaertner teaches a monitoring program that alerts a user or performs an action after conditions of a first and second set of parameters are satisfied. While a user may be alerted if a state machine determines that conditions have not been met, there is no motivation to combine a state machine determination as described with the teachings in Wu et al. That is, Wu et al. fails to teach displaying an indication

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of the at least one effect on a GUI prior to modification of the another scan parameter or displaying on a console if there is any consequence of modifying at least one of a plurality of options on another option before modifying the another option, and Gaertner, which teaches alerting users when a state machine has determined that conditions for the state machine are not met, fails to teach displaying an effect on a scan parameter prior to modifying the scan parameter. Since a combination of the references fails to teach that called for in claims 19 and 25, the Examiner has not provided a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references.

Therefore, because there is no motivation to combine the references and because the art of record fails to teach each and every element of the claimed invention, Applicant believes that claims 19 and 25 and the claims that depend therefrom are patentably distinct from the art of record.

Therefore, in light of at least the foregoing, Applicant respectfully believes that the present application is in condition for allowance. As a result, Applicant respectfully requests timely issuance of a Notice of Allowance for claims 1-11 and 13-31.

Applicant appreciates the Examiner's consideration of these Amendments and Remarks and cordially invites the Examiner to call the undersigned, should the Examiner consider any matters unresolved.

Respectfully submitted,

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Dated: _8-08-05_
Attorney Docket No.: GEMS8081.107

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